

WHAT IS CLAIMED IS:

1. A transdermal delivery system comprising an ethoxylated oil and a delivery agent.
2. The transdermal delivery system of Claim 1, further comprising water.
- 5 3. The transdermal delivery system of Claim 1, further comprising an alcohol.
4. The transdermal delivery system of Claim 1, wherein said ethoxylated oil comprises an animal oil or a vegetable oil.
- 10 5. The transdermal delivery system of Claim 1, wherein said ethoxylated oil comprises an oil selected from the group consisting of castor oil, jojoba oil, corn oil, and emu oil.
6. The transdermal delivery system of Claim 1, wherein said delivery agent is a non-steroidal anti inflammatory drug (NSAID).
- 15 7. The transdermal delivery system of Claim 1, wherein said non-steroidal anti inflammatory drug (NSAID) is selected from the group consisting of ibuprofen (2-(isobutylphenyl)-propionic acid); methotrexate (N-[4-(2, 4 diamino 6 - pteridinyl - methyl] methylamino] benzoyl)-L-glutamic acid); aspirin (acetylsalicylic acid); salicylic acid; diphenhydramine (2-(diphenylmethoxy)-NN-dimethylethylamine hydrochloride); naproxen (2-naphthaleneacetic acid, 6-methoxy-9-methyl-, sodium salt, (-)); phenylbutazone (4-butyl-1,2-diphenyl-3,5-pyrazolidinedione); sulindac-(2)-5-fuoro-2-methyl-1-[[p-(methylsulfinyl)phenyl]methylene]-1H-indene-3-acetic acid; diflunisal (2',4', -difluoro-4-hydroxy-3-biphenylcarboxylic acid; piroxicam (4-hydroxy-2-methyl-N-2-pyridinyl-2H-1, 2-benzothiazine-2-carboxamide 1, 1-dioxide, an oxicam; indomethacin (1-(4-chlorobenzoyl)-5-methoxy-2-methyl-H-indole-3-acetic acid); meclofenamate sodium (N-(2, 6-dichloro-m-tolyl) anthranilic acid, sodium salt, monohydrate); ketoprofen (2- (3-benzoylphenyl)-propionic acid; tolmetin sodium (sodium 1-methyl-5-(4-methylbenzoyl-1H-pyrrole-2-acetate dihydrate); diclofenac sodium (2-[(2,6-dichlorophenyl)amino] benzeneatic acid, monosodium salt); hydroxychloroquine sulphate (2-{{4-[(7-chloro-4-quinolyl) amino] pentyl} ethylamino}ethanol sulfate (1:1); penicillamine (3-mercaptop-D-valine); flurbiprofen ([1,1-biphenyl]-4-acetic acid, 2-fluoro-alphamethyl-, (+-.)); cetodolac (1-8- diethyl-

13,4,9, tetra hydropyrano-[3-4-13] indole-1-acetic acid; mefenamic acid (N-(2,3-xylyl)anthranilic acid; and diphenhydramine hydrochloride (2-diphenyl methoxy-N, N-di-methylethamine hydrochloride).

8. The transdermal delivery system of Claim 1, wherein the delivery
5 agent is a protein or fragment thereof.

9. The transdermal delivery system of Claim 8, wherein the delivery
agent is a collagen.

10. The transdermal delivery system of Claim 8, wherein the delivery
agent has an approximate average molecular weight of less than or equal to 1,000
daltons.

11. The transdermal delivery system of Claim 9, wherein the collagen has
an approximate average molecular weight from about 2,000 daltons to about 500,000
daltons.

12. The transdermal delivery system of Claim 9, wherein the collagen has
15 an approximate average molecular weight of about 2,000 daltons and the
therapeutically effective amount by weight or volume is 0.1% to 50.0%.

13. The transdermal delivery system of Claim 9, wherein the collagen has
an approximate average molecular weight of about 300,000 daltons and the
therapeutically effective amount is 0.1% to 2.0%.

20 14. The transdermal delivery system of Claim 9, wherein the collagen has
an approximate average molecular weight of about 500,000 daltons and the
therapeutically effective amount by weight or volume is 0.1% to 4.0%.

15. A method of reducing pain or inflammation comprising:
25 identifying a subject in need of a reduction in pain or inflammation;
and

providing said subject a transdermal delivery system according to
Claim 1.

16. The method of Claim 15, wherein said transdermal delivery system
further comprises water.

30 17. The method of Claim 15, wherein said transdermal delivery system
further comprises an alcohol.

18. The method of Claim 15, wherein said ethoxylated oil comprises an animal oil or a vegetable oil.

19. The method of Claim 15, wherein said ethoxylated oil comprises an oil selected from the group consisting of castor oil, jojoba oil, corn oil, and emu oil.

5 20. The method of Claim 15, wherein said delivery agent is a non-steroidal anti inflammatory drug (NSAID).

10 21. The method of Claim 15, wherein said non-steroidal anti inflammatory drug (NSAID) is selected from the group consisting of ibuprofen (2-(isobutylphenyl)-propionic acid); methotrexate (N-[4-(2, 4 diamino 6 - pteridinyl - methyl] 15 methylamino] benzoyl)-L-glutamic acid); aspirin (acetylsalicylic acid); salicylic acid; diphenhydramine (2-(diphenylmethoxy)-NN-dimethylethylamine hydrochloride); naproxen (2-naphthaleneacetic acid, 6-methoxy-9-methyl-, sodium salt, (-)); phenylbutazone (4-butyl-1,2-diphenyl-3,5-pyrazolidinedione); sulindac-(2)-5-fluoro-2-methyl-1-[[p-(methylsulfinyl)phenyl]methylene]-1H-indene-3-acetic acid; diflunisal (2',4', -difluoro-4-hydroxy-3-biphenylcarboxylic acid; piroxicam (4-hydroxy-2-methyl-N-2-pyridinyl-2H-1, 2-benzothiazine-2-carboxamide 1, 1-dioxide, an oxicam; indomethacin (1-(4-chlorobenzoyl)-5-methoxy-2-methyl-H-indole-3-acetic acid); meclofenamate sodium (N-(2, 6-dichloro-m-tolyl) anthranilic acid, sodium salt, monohydrate); ketoprofen (2- (3-benzoylphenyl)-propionic acid; tolmetin sodium 20 (sodium 1-methyl-5-(4-methylbenzoyl-1H-pyrrole-2-acetate dihydrate); diclofenac sodium (2-[(2,6-dichlorophenyl)amino] benzeneatic acid, monosodium salt); hydroxychloroquine sulphate (2- {[4-[(7-chloro-4-quinolyl) amino] pentyl] ethylamino}ethanol sulfate (1:1); penicillamine (3-mercaptop-D-valine); flurbiprofen ([1,1-biphenyl]-4-acetic acid, 2-fluoro-alphamethyl-, (+-.)); cetodolac (1-8- diethyl- 25 13,4,9, tetra hydropyrano-[3-4-13] indole-1-acetic acid; mefenamic acid (N-(2,3-xylyl)anthranilic acid; and diphenhydramine hydrochloride (2-diphenyl methoxy-N, N-di-methylethamine hydrochloride).

30 22. A method of treating or preventing cancer and Alzheimer's disease comprising the step of identifying a subject in need of a COX enzyme inhibitor and administering to said subject a transdermal delivery system according to Claim 20.

23. A method of treating or preventing cancer and Alzheimer's disease comprising the step of identifying a subject in need of a COX enzyme inhibitor and administering to said subject a transdermal delivery system according to Claim 21.

24. A method of reducing wrinkles in the skin comprising:
5 identifying a subject in need of skin tone restoration; and
providing to said subject a transdermal delivery system according to
Claim 1.

25. The method of Claim 24, wherein said delivery system further comprises water.

10 26. The method of Claim 24, wherein said delivery system further comprises an alcohol.

27. The method of Claim 24, wherein said ethoxylated oil comprises an animal oil or a vegetable oil.

15 28. The method of Claim 24, wherein said ethoxylated oil comprises an oil selected from the group consisting of castor oil, jojoba oil, corn oil, and emu oil.

29. The method of Claim 24, wherein said delivery agent is a protein or fragment thereof.

30. The method of Claim 29, wherein the delivery agent has an approximate average molecular weight of less than or equal to 1,000 daltons.

20 31. The method of Claim 29, wherein the delivery agent is a collagen.

32. The method of Claim 31, wherein said collagen has an approximate average molecular weight from about 2,000 daltons to about 500,000 daltons.

33. The method of Claim 31, wherein said collagen has an approximate average molecular weight of about 2,000 daltons.

25 34. The method of Claim 31, wherein said collagen has an approximate average molecular weight of about 300,000 daltons and the therapeutically effective amount is 0.1% to 2.0%.

30 35. The method of Claim 31, wherein said collagen has an approximate average molecular weight of about 500,000 daltons and the therapeutically effective amount by weight or volume is 0.1% to 4.0%.